

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 5-11, 13, 14, 16-19 and 65-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang (6,156,086), in view of Giannetta et al (6,334,881 B1) and Requejo et al (5,090,975).

Zhang discloses a filtration bag for a floor care appliance comprising two layers of fibrous support layer (12, col. 8, lines 36-50) and a film layer (13, col. 8, lines 18-25) (see also Fig. 1, col. 2, lines 60-64) wherein the fibrous support layer (12) provided primarily for protection of the film layer (13) and wherein the support layer is the outer layer and the film layer is the inner layer (see Fig. 1). Zhang clearly shows in Fig. 1 that there are only two layers wherein one side of the film layer is bonded to a support layer and the other side is free of bonded material. Claims 1, 65, 66, 70, 72 and 91 differ from the disclosure of Zhang in that the film layer is a layer of expanded polytetrafluoroethylene and the support layer is a substrate layer selected from a group consisting of polyester, polyolefin and nylon. Giannetta et al disclose a filter media for the vacuum cleaner bag having a layer of porous expanded PTFE membrane wherein the porous expanded PTFE is known to provide a filtration efficiency of 60 to 99%, or more, for 0.3 micron particles, and preferably an efficiency of 99.7 to 99.97 or more (see col. 2, lines 20-24). Requejo et al disclose a filtration media for the vacuum cleaner bag having a nonwoven substrate such as polyolefin (see col. 1, lines 15-18) since the vacuum cleaner bag is made from the nonwoven substrate polyolefin without the

requirement of a support scrim (see col. 2, lines 54-68). Either Requejo et al or Zhang discloses a filtration bag for a floor care appliance comprising a closed receptacle for collecting dirt particles having an inlet opening for allowing a dirt laden air stream to enter. Requejo et al further disclose the bag comprising cellulose or synthetic fibers such as polyolefin, and the front panel portion and bottom panel portion sealed together by folding and an adhesive for by mechanical means such as sewing or by thermal bonding (Abstract; 22, 23 & 24 in Fig. 2; col. 1, lines 15-24; col. 7, lines 40-56). Zhang discloses the filter bag comprising polyolefin and the sidewalls of bag are joined by seams via thermal bonding method (Abstract; col. 3, line 35 through col. 4, line 9; col. 8, lines 51-58). Either Requejo et al or Zhang discloses a method of making a filtration bag comprising the steps of providing a sheet of composite material, folding sheet of composite material, sealing together respective edges by a seam, and providing an aperture in a front sidewall of the receptacle wherein a dirt laden air stream enters. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the film layer of Zhang by a porous expanded PTFE as taught by Giannetta et al and to substitute the support layer of Zhang by a nonwoven substrate polyolefin layer as taught by Roquejo et al since it is well known in the art that a vacuum cleaner bag made by this composite of these two layers would provide optimal filtration efficiency.

Claims 12 and 15 call for the filter bag being square. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify the filter bag being square, rectangular, or any other desired shape since it is well

settled that mere change of shape without affecting the function of the part would have been an obvious design modifications. Eskimo Pie Corp v. Levous et al 3 USPQ 23.

Response to Amendment

Applicant's arguments filed on February 16, 2008 have been fully considered but they are not persuasive.

Applicant's main argument is that "the Giannetta et al does not teach the filtration media for a vacuum cleaner which is formed from a composite sheet of just at least one layer of expanded PTFE and at least one substrate layer without the protective surface pattern", as newly amended.

The Examiner introduces Zhang (6,156,086) as the primary reference under the 103(a) rejection of the claims to show: Zhang discloses a filtration bag for a floor care appliance comprising two layers of fibrous support layer (12, col. 8, lines 36-50) and a film layer (13, col. 8, lines 18-25) (see also Fig. 1, col. 2, lines 60-64) wherein the fibrous support layer (12) provided primarily for protection of the film layer (13) and wherein the support layer is the outer layer and the film layer is the inner layer (see Fig. 1), as claimed. Zhang clearly shows in Fig. 1 that there are only two layers wherein one side of the film layer is bonded to a support layer and the other side is free of bonded material, as claimed.

The Examiner introduces Giannetta et al (6,334,881 B1) and Requejo et al (5,090,975) as the secondary references in combination with the primary reference Zhang under the 103(a) rejection of the claims to show:

Giannetta et al disclose a filter media for the vacuum cleaner bag having a layer of porous expanded PTFE membrane wherein the porous expanded PTFE is known to provide a filtration efficiency of 60 to 99%, or more, for 0.3 micron particles, and preferably an efficiency of 99.7 to 99.97 or more (see col. 2, lines 20-24). Requejo et al disclose a filtration media for the vacuum cleaner bag having a nonwoven substrate such as polyolefin (see col. 1, lines 15-18) since the vacuum cleaner bag is made from the nonwoven substrate polyolefin without the requirement of a support scrim (see col. 2, lines 54-68). Either Requejo et al or Zhang discloses a filtration bag for a floor care appliance comprising a closed receptacle for collecting dirt particles having an inlet opening for allowing a dirt laden air stream to enter. Requejo et al further disclose the bag comprising cellulose or synthetic fibers such as polyolefin, and the front panel portion and bottom panel portion sealed together by folding and an adhesive for by mechanical means such as sewing or by thermal bonding (Abstract; 22, 23 & 24 in Fig. 2; col. 1, lines 15-24; col. 7, lines 40-56). Zhang discloses the filter bag comprising polyolefin and the sidewalls of bag are joined by seams via thermal bonding method (Abstract; col. 3, line 35 through col. 4, line 9; col. 8, lines 51-58). Either Requejo et al or Zhang discloses a method of making a filtration bag comprising the steps of providing a sheet of composite material, folding sheet of composite material, sealing together respective edges by a seam, and providing an aperture in a front sidewall of the receptacle wherein a dirt laden air stream enters.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to substitute the film layer of Zhang by a porous expanded

PTFE as taught by Giannetta et al and to substitute the support layer of Zhang by a nonwoven substrate polyolefin layer as taught by Roquejo et al since it is well known in the art that a vacuum cleaner bag made by this composite of these two layers would provide optimal filtration efficiency.

Applicant's arguments with respect to claims 1, 5-19 and 65-81 have been thoroughly considered but are moot in view of the rejection, as discussed above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh-Chau T. Pham whose telephone number is (571) 272-1163. The examiner can normally be reached on Mon/Tues/Thur/Fri 7:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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